Inventor: PICKFORD ET AL
Serial No.: 10/501,538
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Examiner: Christopher D. Prone
Group Art Unit: 3738

Amendments to the claims:

This listing of claims replaces all prior versions, and listings, in the application.

Listing of claims:

Claims 1-19 (cancelled)

20. (Previously Presented) An implant for use in a surgical procedure, said implant comprising a metal substrate and a surface layer integral with said metal substrate, said surface layer comprising an anodized layer grown from the metal of said metal substrate by anodizing, said surface layer incorporating a biocidal metal in an ionic form, the biocidal metal ions being adsorbed into said surface layer by ion exchange, and the quantity of biocidal metal ions being such that the biocidal material is effective in suppressing infection after the surgical procedure.

21. (Previously Presented) An implant as claimed in claim 20 wherein said surface layer comprises a metal phosphate.

22. (Currently amended) An implant as claimed in claim 20 wherein said biocidal metal ions are silver ions, wherein the concentration of said silver is equivalent to an average surface loading of 73 $\mu g/cm^2$.

23. (Previously Presented) An implant as claimed in claim 20 wherein the surface of said implant is in a highly polished condition before provision of said surface layer.

24. (Previously Presented) An implant as claimed in claim

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21 wherein said biocidal metal ions are silver ions.

25. (Previously Presented) An implant as claimed in claim 21 wherein the surface of said implant is in a highly polished condition before provision of said surface layer.

26. (Previously Presented) An implant for use in a surgical procedure, said implant comprising a metal substrate and a surface layer integral with said metal substrate, said surface layer comprising an anodized layer containing material selected from the group consisting of oxide, and phosphate, and being grown from the metal of said metal substrate by anodizing, wherein said anodized layer incorporates a biocidal metal adsorbed by ion exchange into said surface layer, and the quantity of biocidal metal ions being such that the biocidal material is effective in suppressing infection after the surgical procedure.

27. (Previously Presented) An implant as claimed in claim 26 wherein said surface layer comprises a metal phosphate.

28. (Currently amended) An implant as claimed in claim 26 wherein said biocidal metal ions are silver ions, wherein the concentration of said silver is equivalent to an average surface loading of 73 $\mu g/cm^2$.

29. .(Previously Presented) An implant as claimed in claim 26 wherein the surface of said implant is in a highly polished condition before provision of said surface layer.

30. (Previously Presented) An implant as claimed in claim 27 wherein said biocidal metal ions are silver ions.

31. (Previously Presented) An implant as claimed in claim

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27 wherein the surface of said implant is in a highly polished condition before provision of said surface layer.

32. (Previously Presented) An implant for use in a surgical procedure, said implant comprising a metal substrate and a surface layer integral with said metal substrate, said surface layer comprising a material selected from the group consisting of oxide, and phosphate, said surface layer further comprising an anodized layer grown from the metal of said metal substrate by anodizing and incorporating therein a biocidal metal adsorbed by ion exchange into said surface layer, and the quantity of biocidal metal ions being such that the biocidal material is effective in suppressing infection after the surgical procedure.

33. (Previously Presented) An implant as claimed in claim 32 wherein said surface layer comprises a metal phosphate.

34. (Currently amended) An implant as claimed in claim 32 wherein said biocidal metal ions are silver ions, wherein the concentration of said silver is equivalent to an average surface loading of 73 $\mu g/cm^2$.

35. (Previously Presented) An implant as claimed in claim 32 wherein the surface of said implant is in a highly polished condition before provision of said surface layer.

36. (Previously Presented) An implant as claimed in claim 33 wherein said biocidal metal ions are silver ions.

37. (Previously Presented) An implant as claimed in claim 33 wherein the surface of said implant is in a highly polished condition before provision of said surface layer.

38. (Previously Presented) An implant as claimed in claim 20 wherein the biocidal material adsorbed into said surface layer is effective in suppressing infection for at least 6 weeks after the surgical procedure.

39. (Previously Presented) An implant as claimed in claim 26 wherein the biocidal material adsorbed into said surface layer is effective in suppressing infection for at least 6 weeks after the surgical procedure.

40. (Previously Presented) An implant as claimed in claim 32 wherein the biocidal material adsorbed into said surface layer is effective in suppressing infection for at least 6 weeks after the surgical procedure.

41. (New) A method of making an implant for use in a surgical procedure, said method comprising the steps of providing a metal substrate, anodizing said substrate in an anodizing electrolyte for forming an anodized layer from the metal of said substrate, rinsing said anodizing electrolyte off from said substrate; then performing ion exchange between a solution containing biocidal metal ions and said anodized layer for absorbing said biocidal metal ions into said anodized layer by ion exchange, and supplying a sufficient quantity of said biocidal metal ions for effectively suppressing infection following implantation of said substrate during a surgical procedure.

42 (New) A method as defined in claim 41 including the step of selecting and using phosphoric acid as said anodizing electrolyte.

43 (New) A method as defined in claim 41 including the step of selecting and using an aqueous solution of silver nitrate for

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providing said biocidal metal ions, wherein the concentration of said silver is equivalent to an average surface loading of 73 $\mu g/cm^2$.